**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

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| *In re*<br>Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Space Stations to Provide Domestic and International Satellite Service in the United States | IB Docket No. 96-111 |
| and | |
| Amendment of Section 25.131 of the Commission's Rules and Regulations to Eliminate the Licensing Requirement for Certain International Receive-Only Earth Stations | CC Docket No. 93-23<br>RM-7931 |
| and | |
| COMMUNICATIONS SATELLITE CORPORATION Request for Waiver of Section 25.131(j)(1) of the Commission's Rules As It Applies to Services Provided via the Intelsat K Satellite | File No. ISP 92-007 |

# Reply Comments of TELEDESIC CORPORATION

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## SUMMARY OF ARGUMENT

In these Reply Comments, Teledesic Corporation responds to arguments raised by other commenters regarding the Commission's proposed service categories; the nature, merits, and application of a "critical mass" version of ECO-Sat; the need for fairness in spectrum management; the relevance for ECO-Sat purposes of the nationality of a system's investors; and the timing of a final Report and Order in this proceeding. In brief, Teledesic argues as follows:

1. In addition to its FSS, MSS, and DTH service categories, the Commission should create a fourth service category for interactive broadband satellite services, or "IBSS." As the Commission recognized in its proposal, the service categories should only be "rules of thumb," flexibly applied.

2. To determine whether a non-U.S. system should be permitted to provide IBSS in the United States, the Commission should determine whether, under all the facts and circumstances, entry by the non-U.S. system will distort competition in the United States.

3. In applying the ECO-Sat test, the Commission should consider any national allocation that is anticompetitive in purpose or effect to be a *de facto* barrier to entry. In turn, the Commission must exercise the same impartiality toward non-U.S. systems as it discharges its own spectrum management responsibilities.

4. The ECO-Sat analysis should focus primarily on where the system is licensed, not the nationality of the system's investors.

5. The Commission should proceed to a final Report and Order in this proceeding without waiting for the conclusion of the World Trade Organization talks on trade in "basic telecommunications services."

## Reply Comments of TELEDESIC CORPORATION

Teledesic Corporation respectfully submits these Reply Comments regarding the Commission's *"DISCO II"* proceeding. Teledesic's original Comments generally supported the proposals in the Commission's Notice, but urged the Commission (1) to create a new "service category" for interactive broadband satellite services ("IBSS")[1]; and (2) to apply a form of "critical mass" standard to IBSS, so that the Commission would permit non-U.S. systems to provide IBSS service in the United States whenever they could do so without distorting competition.[2] In addition, Teledesic argued that the most serious potential *de facto* market barrier that U.S. satellite systems are likely to face is an unsupported claim of spectrum scarcity.[3]

Many of the other commenters in this proceeding addressed these same subjects, or at least closely related subjects. In these Reply Comments, therefore, Teledesic will discuss other commenters' submissions regarding the nature of the "service categories" used by the Commission; the nature, merits, and applicability of a "critical mass" standard; and the need for fairness and neutrality in spectrum management, both here and abroad. In addition, Teledesic opposes various suggestions that the regulatory treatment of a non-U.S. satellite operator should depend upon the nationality of that operator's investors. Finally Teledesic recommends that the Commission proceed to a final Report and Order in this proceeding without delay.

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1 Comments of Teledesic Corporation at 4-7.

2 *Id.* at 7-9.

3 *Id.* at 3.

## I. THE COMMISSION SHOULD CREATE A FOURTH SERVICE CATEGORY FOR INTERACTIVE BROADBAND SATELLITE SERVICES.

In the *Notice*, the Commission proposed to subdivide satellite communications services into several distinct "service categories" for purposes of the ECO-Sat test.[4] The Commission acknowledged that "[t]he available types of satellite services continue to multiply, and any lines of demarcation between service categories may be inherently both provisional and uncertain. In the interest of providing general guidance, however, we propose a 'rule of thumb' based on the following service categories: DTH (including true DBS service), FSS, and MSS."[5]

Among the parties who commented on this aspect of the *Notice*, several expressed a desire for somewhat greater particularity in the service categories. Most suggested some form of "subcategorization." Orion, for example, argued that any ECO-Sat analysis of FSS market access should distinguish between VSAT, voice, video, and data services.[6] TMI, without explicitly asking for "subcategories," suggested that MSS should be subdivided into regional MSS and global MSS.[7] Similarly, Newcomb and Mobile Datacom, filing jointly, suggested that MSS should be subdivided "into two subcategories, *i.e.*, one for RDSS services like packet data messaging and position location services which do not involve switched interconnection or voice

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4 *Notice* ¶¶ 33-36.

5 *Notice* ¶ 34.

6 Comments of Orion Network Systems, Inc., at 9.

7 Comments of TMI Communications and Company, Limited Partnership, at 16.

applications and one for those MSS services which contemplate global interconnected voice and data services."[8]

Other comments evidenced some suspicion of the proposed categories. Lockheed Martin, for example, appeared to argue that virtually all the details of the ECO-Sat test should be determined on a case-by-case basis.[9] Thus, rather than promulgating service categories and announcing a test within each service category, Lockheed Martin believes the Commission should adopt "guidelines, rather than rigid and necessarily complex rules," and should "individually evaluate[]" each non-U.S. system "using the most appropriate ECO-Sat approach."[10] MCI also counseled flexibility,[11] echoing the Commission's recognition that the service category definitions are "inherently provisional and uncertain."

Teledesic agrees with all of these seemingly disparate comments, up to a point. We join with Orion, TMI, Newcomb, and Mobile Datacom in requesting more particularity in the service categories — by means of subcategorization in their case, and by means of a distinct category in ours.[12] At the same time, we again emphasize the need for flexibility and the reality that new

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[8] Joint Comments of Newcomb Communications, Inc. and Mobile Datacom Corp. at 10.

[9] Comments of Lockheed Martin Corp. at 9-10.

[10] *Id.* at 10.

[11] MCI Comments at 13.

[12] Unlike the services with which Orion, TMI, Newcomb, and Mobile Datacom are concerned, interactive broadband satellite services are not just a particular type of fixed or mobile service. Rather, as we noted in our original comments, IBSS is a type of service that is not inherently fixed or inherently mobile. Thus, while subcategorization may be an attractive option for some types of services, a separate category is more appropriate for IBSS.

services will constantly be coming along to disrupt whatever classification the Commission adopts. This flexibility, however, should not decay into a regulatory scheme where one cannot predict in advance what test the regulator will apply. We believe our suggestion — four service categories as a "rule of thumb," flexibly applied — adequately balances the need for predictability against the danger of obsolescence.

Other commenters have suggested additional criteria that might be used in classifying systems into appropriate service categories. Among these is HBO's recommendation to consider "the frequencies used" by the system in question.[13] It may not be practical for the categories themselves to be frequency-based, since this would not reflect actual competition in some instances.[14] However, operators obviously coordinate their frequency selection with their business plans, and the technical characteristics of a particular band may often be such that the band tends to attract people serving the same target markets. In some cases, the frequencies used by a particular system may be very instructive. Ambiguity may also be resolved by reference to whether service is global or regional, or whether user equipment is easily transportable.[15]

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[13] Comments of Home Box Office at 15.

[14] For example, the Commission will presumably want to accord the same regulatory treatment to S-band MSS systems at 1.6/2.4 GHz as it does at 2 GHz, but there may be significant operational, regulatory, technical, and economic differences among MSS services at L-, S-, C-, Ku-, and Ka-band. Similarly, some DTH providers operate in FSS bands while others who are direct competitors operate in the BSS band, and frequency characteristics may make DTH service in the FSS portion of the Ku-band more similar to services in the BSS portion of the Ku-band than to services in the FSS portion of the C-band.

[15] *See* Comments of Lockheed Martin Corp. at 10.

Consideration of facts like these should be part of the flexible approach the Commission uses to tailor the appropriate competitive response in each particular case.

## II. THE COMMISSION SHOULD PERMIT NON-U.S. SYSTEMS TO PROVIDE IBSS IN THE UNITED STATES TO THE EXTENT THAT THEY CAN DO SO WITHOUT DISTORTING COMPETITION.

In the *Notice,* the Commission proposed what it called a "critical mass" approach to ECO-Sat for MSS systems. This approach, which the *Notice* described as "simultaneous evaluation of effective competitive opportunities for MSS providers on a global or regional basis . . . would require that some 'critical mass' of foreign markets be open to U.S. satellite operators before a non-U.S. MSS system could provide *any* service in the United States."[16] Elsewhere in the *Notice*, the Commission mentioned — but did not propose — a "critical mass" analysis for non-MSS systems as well.[17]

Most of the comments on the "critical mass" concept came from MSS interests.[18] Motorola/Iridium and TRW endorsed the test for MSS and offered particular versions of how the

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[16] *Notice* ¶ 47.

[17] *Notice* ¶ 31. The Commission rejected "critical mass" for services other than MSS because it concluded "that the two-pronged framework better fits the majority of satellite services." *Id.*

[18] Some FSS providers also opposed application of a "critical mass" test, though the scope of their opposition is not clear. AT&T states without qualification that "the Commission should not adopt its proposed one-step alternative 'critical mass' analysis." Comments of AT&T Corp. at 6. However, from context this opposition appears to be limited to the FSS service category. Orion's condemnation is similarly unqualified, but for the most part it restates shortcomings that the Commission itself recited in the FSS/DTH part of the *Notice*. Comments of Orion Network Systems, Inc. at 8. For these reasons, we interpret Orion's and AT&T's comments as limited to the traditional FSS context.

test might be defined.[19] Motorola's version is rather complex, but in brief it is to look at all the countries whose nationals have direct or indirect investment in the non-U.S. system, and to *presume* entry if there are effective competitive opportunities for U.S.-licensed satellites in 80% of those countries, comprising 80% of the total population of all investing countries. Otherwise, non-entry would be presumed. Either way, the presumption could be rebutted upon consideration of other relevant factors.[20] TRW's version is substantially similar to Motorola's for any MSS providers that also happen to be spin-offs of intergovernmental satellite organizations like Intelsat and Inmarsat.[21] For "historically private" non-U.S. MSS systems, TRW advocates only the second half of the Motorola test, *i.e.*, 80% of the population served by the system.[22]

ICO called the critical mass test "unworkable and inappropriate."[23] However, ICO assumed (and recognized that it was assuming) that any such test would be defined in terms of a list of countries, and ICO pointed out the problems with such an approach — problems that the Commission itself acknowledged in the *Notice*.[24] Comsat, also focusing on lists of countries, took the same position, and suggested instead an "effect on competition" test.[25] Hughes asserted that

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19 Comments of Motorola Satellite Communications, Inc. and Iridium, Inc. at 27-31; Comments of TRW, Inc. at 14-18.

20 Motorola/Iridium Comments at 32-34.

21 TRW Comments at 22.

22 TRW Comments at 19.

23 Comments of ICO Global Communications at 24.

24 *Notice* ¶ 31.

25 Comments of Comsat Corp. at 29.

application of a critical mass test "would make no sense"; that it "is an inherently vague term"; that "any definition would be totally arbitrary and impractical"; and that it "could produce only anticompetitive results."[26]

Teledesic agrees with Motorola, TRW, and the other commenters who point out that the "critical mass" test better fits some services than the "home-plus-route" standard, and Teledesic explained in its original Comments why the characteristics of the IBSS market demand the former rather than the latter approach.[27] At the same time, any broad concept can be implemented in an overly mechanistic way, and the concept of "critical mass" is no exception. Thus, Teledesic agrees with ICO and Comsat that any "list of countries" version of a critical mass test will have serious shortcomings, as the Commission recognized in the *Notice* and as Teledesic argued in its original Comments.[28] In fact, the test proposed by Teledesic — to permit access by non-U.S. systems whenever such access would not distort competition in the United States — is remarkably similar to the "effect on competition" test proposed by Comsat in its comments. The fact that Teledesic characterized this test as a *version* of critical mass test while Comsat presented it as an *alternative* to critical mass may suggest that the term "critical mass" has generated more heat than light, and should be retired from the *DISCO II* context in favor of a name that better captures the Commission's focus on the competitive consequences of market entry.

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[26] Consolidated Comments of DIRECTV, Inc., DIRECTV International, Inc., and Hughes Communications Galaxy, Inc., at 13 (hereinafter cited as "Hughes Comments").

[27] Comments of Teledesic Corp. at 4-7.

[28] *Id.* at 9.

ICO's criticisms of the critical mass approach, circumscribed as they are by ICO's statement that it is assuming the test will be something like a "list of countries," do not appear to apply to a test such as the one we advocate. Hughes's comments, less carefully circumscribed, seem to be directed at any type of "critical mass" test but they do not withstand scrutiny.[29] Whatever one thinks of the (dispensable) phrase "critical mass," it is difficult to understand how it could be that "*any definition* would be totally arbitrary and impractical." The implication that definitions are unhelpful unless meanings are already commonly recognized is silly. Nor does Hughes explain how the diversity of regulatory regimes around the world prevents the United States from defining the conditions for entry into this market. And the absurd result postulated by Hughes — denial of market access because of just one country or even "a small number of countries" — is by no means a necessary component of critical mass "however the standard is defined." Indeed, Teledesic is unaware of anyone — least of all the Commission — having proposed a version of the test that would lead to this result.

Hughes also contends that "a 'critical mass' test would appear to be especially unfair to global MSS systems such as ICO."[30] In support of this claim, Hughes notes that global MSS systems are international in nature, and that this fact plus "the large number of countries they serve make it especially important that regulatory restrictions in a handful of foreign countries not be permitted to preclude a potential international competitor completely from access to the

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[29] Hughes Comments at 13.

[30] *Id.*

U.S."[31] Surely Hughes cannot mean that it is unfair for the U.S. to apply *any* entry standard for non-U.S. systems. Yet Hughes does not explain what it is about critical mass that makes it so unfair. It is equally unclear why Hughes believes critical mass is inappropriate for systems that serve a large number of countries; that, indeed, is the situation for which the critical mass test was designed. To the extent that Hughes's broad-brush disparagement of the critical mass concept is intended to apply to tests like the one suggested by Teledesic, we do not understand the basis for Hughes's criticisms.

In sum, no commenter has convincingly argued that it would be "inappropriate" or "unworkable" for the Commission to base its entry decisions on whether entry would distort competition in the United States. There is in fact substantial agreement that this type of test is more appropriate for some services than the standard "home-plus-route" approach. Whatever the merits of a more formulaic approach for MSS, the Commission should adopt the flexible, procompetitive entry standard suggested by Teledesic for the IBSS market.

## III. THE COMMISSION SHOULD EXERCISE ITS SPECTRUM MANAGEMENT FUNCTIONS IMPARTIALLY, AND SHOULD INSIST ON IMPARTIALITY IN THE SPECTRUM MANAGEMENT ACTIONS OF OTHER ADMINISTRATIONS.

In our original Comments, we emphasized the importance of spectrum allocation as a possible *de facto* barrier to market entry. We urged the Commission to reject under the ECO-Sat test "any national spectrum allocation that has the primary purpose or effect of blocking access by

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[31] *Id.* at 13-14.

foreign systems."[32] Not surprisingly, a number of other commenters also touch upon the importance of spectrum allocation and assignment here and in other countries,[33] and no one overtly disagrees with the proposition that spectrum allocations can be "gamed" to produce *de facto* barriers to entry.

Obviously, it is important for the Commission to discharge its spectrum management obligations with the same impartiality it will expect of foreign regulators. There are, however, a few commenters whose other spectrum-related positions are impossible to square with neutrality in spectrum allocation. AT&T, for example, opposes the proposal to allow non-U.S. systems to participate in FCC space station processing rounds whenever band splitting is necessary.[34] AT&T recognizes that equality is at stake but says that "the FCC should not be assigning orbital slots *or spectrum* to non-U.S.-licensed satellites. Rather, these are matters for the foreign administration to handle through the ITU registration and coordination process."[35] AMSC does not appear to

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[32] Comments of Teledesic Corp. at 3. We noted further, "A national allocation that materially differs from the ITU Table of Frequency Allocations, at the very least, should be considered strong evidence of governmental purpose to block access by foreign systems." *Id.* We should also have added that the same illegitimate purpose should be presumed whenever a regulator assigns unconventional channel pairings or designates unusual spectrum uses for the apparent purpose of excluding foreign systems while permitting access by their own.

[33] *See, e.g.*, Comments of L/Q Licensee, Inc. and Loral Space & Communications Ltd. at 4-5, 7-8; Motorola/Iridium Comments at 33.

[34] AT&T Comments at 10.

[35] *Id.* (emphasis added). Lockheed Martin makes a superficially similar argument, apparently under the impression that the Commission has somehow proposed to *require* non-U.S. satellite operators to participate in U.S. processing rounds. Lockheed Martin Comments at 6. Lockheed Martin correctly notes that this would invite charges that the U.S. was not recognizing satellite licenses issued by other countries, and was setting itself up as the world's satellite regulator. *Id.* at 6-7. Lockheed Martin appears to have misconstrued the

mind if non-U.S. systems are included in processing rounds, as long as the U.S. continues to assert that there is only enough spectrum in the L-band for one U.S.-licensed system.[36] Loral asks the Commission to defer any decision on processing issues until applications are actually received.[37]

The Commission's proposal to permit non-U.S. systems to file earth station applications in FCC space station processing rounds is a necessary element of impartial spectrum management. Without this proposal, a non-U.S. system seeking to operate on frequencies that were subject to any sort of band-segmentation plan in the United States would have no way of putting any application before the FCC until after the spectrum was fully assigned to U.S. systems.[38] This is exactly the sort of spectrum management policy that poses the greatest threat to U.S-licensed operators who need spectrum allocations in other countries.

The Commission's proposal remedies this unfairness by *permitting* non-U.S. systems, who do not want space station licenses from the FCC, to participate nonetheless in the space station processing round where many of the spectrum management decisions like band segmentation have traditionally been made. It is a good proposal and a good example for foreign regulators to follow. However, because certain aspects of the proposal seem to have been misunderstood, the

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Commission's proposal, but upon inspection it does not appear to have any real objection to *permitting* foreign systems to participate in processing rounds.

36 Comments of AMSC Subsidiary Corp. at 2-4.

37 Comments of L/Q Licensee, Inc. and Loral Space & Communications Ltd. at 16-19.

38 For example, ICO would lack any procedural vehicle for getting access to the MSS frequencies around 2 GHz.

Commission should clarify (1) that this proposal only applies to situations where band-segmentation is the only way for multiple systems to use the band; (2) that each participant in such a proceeding will typically have filed a space station application or an earth station application, but not both; (3) that because it is possible for anyone who meets the relevant cutoff to participate in such a proceeding, the spectrum management decisions made in the proceeding should not be revisited later except for extraordinarily good cause; and (4) that no filing windows that are already closed will be reopened as a result of this proposal.

With these clarifications, the Commission should adopt its original proposal to facilitate non-U.S. systems' access to spectrum in the United States. Only by doing so can the Commission credibly insist on spectrum impartiality from other countries.

## IV. THE AMOUNT AND ORIGIN OF FOREIGN INVESTMENT SHOULD NOT BE THE LINCHPIN OF THE ECO-SAT ANALYSIS

A number of commenters, from various segments of the industry, have suggested that the Commission take account of foreign investment. Orion, for example, believes that the "home market" analysis should incorporate some ownership component, so that a non-U.S. system's "home market" might actually be a group of markets, including the licensing country as well as the countries of "major investors."[39] The "critical mass" tests suggested by TRW and Motorola/Iridium are also triggered by investment.[40]

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[39] Orion Comments at 8.

[40] *See* text accompanying notes 19-22, *supra*.

Teledesic opposes linking any form of the ECO-Sat test to the nationality of a system's investors. The whole point of ECO-Sat is to determine the conditions under which non-U.S.-*licensed* systems may enter the U.S. market. If U.S. regulatory review is triggered not by the origin of the license, but rather by the origin of the capital, then there is no principled way to explain why non-U.S. systems with broad, multinational investment should be treated differently from U.S.-licensed systems with broad, multinational investment. Indeed, Comsat and ICO make exactly this argument in attacking the Commission's ECO-Sat proposal,[41] and their critique is obviously correct *if investment rather than licensing is the key fact.* The virtue of the Commission's proposal was that it tied each element of the ECO-Sat test to some consequence of the U.S. licensing process, going so far as to provide that a U.S. company that got its space station license outside the U.S. would be a non-U.S. system for purposes of ECO-Sat.[42]

This is not to say that the nationality of a system's investors can never be relevant — only that it is not the primary fact requiring regulatory scrutiny. Ownership might be relevant, for example, where a system is jointly owned by a number of government telecom monopolies, who agree that the system should be coordinated by only one of the countries at the ITU. Even private multinational ownership could conceivably be such that one cannot complete an accurate competitive analysis by looking at the licensing jurisdiction alone. Because the Commission always acts in the public interest, it must reserve for itself the flexibility to consider all relevant facts and circumstances, including the origin of a system's capital; but it should do so only as a

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[41] Comsat Comments at 29 n.51; ICO Comments at 28-32.

[42] *See Notice* ¶ 1 n.1, ¶ 13 n.25.

means to the end of accurate competitive analysis and ensure that it does not inadvertently discriminate against non-U.S. systems.

## V. THE COMMISSION SHOULD PROCEED TO A FINAL REPORT AND ORDER IN THIS PROCEEDING WITHOUT DELAY

GE Americom urges the Commission to postpone any final action in *DISCO II* until after the Group on Basic Telecommunications has concluded the trade negotiations that will be held under the auspices of the World Trade Organization in early 1997.[43] However, GE Americom's arguments for delay are unpersuasive. GE Americom appears to assume that *DISCO II* is simply a trade initiative, rather than a *competition* initiative that aims at promoting as much *procompetitive* foreign entry as possible. In fact, *DISCO II* is not primarily about foreign markets; it is about *our* market, and it concerns foreign markets only to the extent that differential market access *affects competition here*. In addition, GE Americom does not appear to acknowledge that a WTO deal, whatever its scope turns out to be, will almost certainly be less comprehensive than *DISCO II*.[44] Especially in light of the serious questions that have been raised about the scope of any WTO deal, it behooves the United States to get its own access policies —

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[43] Comments of GE American Communications, Inc. at 6-7.

[44] The WTO talks are supposed to cover "basic telecommunications services," but there currently exists no common definition of "basic telecommunications services" in the WTO context. This has led to conflicting assertions about coverage, none of which are verifiable by reference to any authoritative source. Some have said that any "basic telecommunications services" agreement would govern all telecommunications services that are not already covered by the GATS agreement on "enhanced" telecommunications services. Some have said that broadcasting and cable television are excluded, while others have stated more broadly that the talks "don't cover video." Everyone seems to agree that the talks do cover "data," but no one seems able to explain why, in the digital age, this category does not swallow all the rest. The lack of a clear, fixed definition makes it unwise to think of *DISCO II* as some sort of "back-up plan" for use only if a WTO agreement cannot be reached.

for the whole industry — in order as soon as possible, without waiting to see if some subset of the industry will be covered by a multilateral deal. We also note that the delay sought by GE Americom would effectively prevent foreign systems from getting into our market right now, because the Commission has said that all applications filed after release of the *Notice* will be subject to the final rules GE Americom wants to delay. From this perspective, prompt completion of *DISCO II* is the fastest way to let non-U.S. satellite systems *in*, not keep them out.

## CONCLUSION

For the reasons stated, Teledesic once again urges the Commission to create a separate IBSS service category for ECO-Sat purposes, and to permit non-U.S. systems to provide IBSS services whenever they can do so without distorting competition in the United States. The Commission should discharge its own spectrum management responsibilities in an unbiased way, and should insist on fairness in other countries' spectrum management decisions. The amount and origin of a system's foreign investment should not be the linchpin of the ECO-Sat analysis. Finally, the Commission should adopt a Report and Order in this proceeding without delay.

Respectfully submitted,

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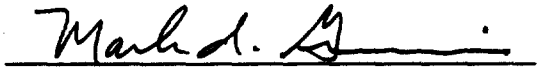

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